

H.W. JOHNS

ASBESTOS

STEAM  
SAVING  
AND  
FIRE  
PROOF  
MATERIALS.



1858.

Twenty-Six Years.

1884.

MORE THAN A QUARTER OF A CENTURY having elapsed since the establishment of our business, it is gratifying to us to be able to announce that our goods in every line—Steam-Pipe and Boiler Coverings, Steam Packings, Paints, Roofing, etc.—have each a larger sale than any other competing article or material for similar purposes known; and as the main object we have always had in view has been to produce only the best article of its kind, we add with pride that our goods everywhere command higher prices than any others for like uses, it having been demonstrated in hundreds of thousands of instances, that they are more economical than the cheap goods with which the market is so bountifully supplied.

Our manufactories are the most extensive and complete of any in this country or abroad for similar purposes, and we shall continue to make only goods of the best quality that can be produced by the most perfect machinery from the best materials known for the purposes required.

That the cost of such goods must be somewhat greater than that of inferior articles is evident, but we assert without fear of contradiction, that ours are the most economical, *i. e.*, they cost less money in the end, owing to their greater durability, and the saving in repairs and renewals; while the greater satisfaction in the use of a good article which performs its functions perfectly, is alone a most important element of economy.

We offer this year several new and important articles of our invention, which have been thoroughly tested for various mechanical and structural purposes and proven of great value.

H. W. JOHNS MANUFACTURING CO.,

87 MAIDEN LANE, NEW YORK.

OCTOBER, 1884.

H. W. JOHNS'

ASBESTOS

STEAM SAVING

—AND—

FIRE-PROOF MATERIALS.

STEAM PIPE & BOILER COVERINGS.

AIR-CHAMBER COVERING.

**SEND FOR NEW PRICE LIST.**

**FEB'Y 2nd, 1885.**

CLOTH.  
PRINT-ROLLER CLOTH.  
TWINE, THREAD, CORD & YARN.  
GLOVES AND MITTENS.



**PLASTIC STOVE-LINING.**

RETORT CEMENT.  
CONCRETE COATING.  
BUILDING FELT & PAPER.

H. W. JOHNS MANUFACTURING CO.,

SOLE MANUFACTURERS,

87 MAIDEN LANE, NEW YORK.

 We are the Sole Manufacturers of genuine Asbestos Materials invented and patented by H. W. JOHNS, and caution the public against purchasing or using any similar materials containing Asbestos, or called by that name, unless they bear our name and dates of Patents, or our Trade Mark. 



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## ASBESTOS

### STEAM SAVING

—AND—

### FIRE-PROOF MATERIALS.

#### STEAM PIPE & BOILER COVERINGS.

AIR-CHAMBER COVERING.

CEMENT FELTING.

LINING FELT.

BOILER LAGGING.

SHEATHING.

#### STEAM PACKINGS.

PISTON PACKING.

WICK PACKING.

FLAT PACKING.

MILL BOARD.

SHEET PACKING.

LOOSE PACKING.

ASBESTOS & RUBBER CLOTH.

ASBESTOS & RUBBER TAPE.

CLOTH.

PRINT-ROLLER CLOTH.

TWINE, THREAD, CORD & YARN.

GLOVES AND MITTENS.

#### PLASTIC STOVE-LINING.

RETORT CEMENT.



CONCRETE COATING.

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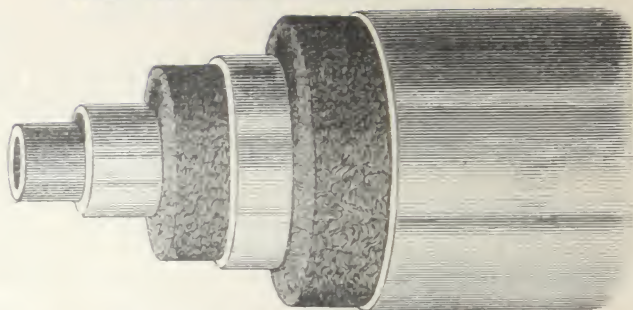
H. W. JOHNS'

PATENT

ASBESTOS

AIR-CHAMBER

STEAM-PIPE  
AND BOILER COVERING.



FOR STEAM & LOCOMOTIVE BOILERS, STEAM & WATER PIPES, &c.

*We recommend the AIR CHAMBER COVERING for all ordinary purposes where steam pressure is not over 90 lbs.*

*This Covering may be removed for repairs to Steam Pipes or Boilers, and replaced without injury.*

This improved form of non-conducting covering is superior to all others now in use for *Steam and Hot-Air Pipes, Boilers, &c.*, where ordinary steam pressure is used, and is formed by first covering the pipe or surface with two layers of our fire-proof ASBESTOS LINING FELT, then a layer of  $\frac{1}{2}$  or 1 inch best quality HAIR FELT with an envelope of our non-porous, fire-proof ASBESTOS SHEATHING, thereby producing an air-tight chamber, filled with hair, *insulated* by the ASBESTOS LINING FELT, which prevents injury to the hair by the heat. This forms our SINGLE AIR-CHAMBER COVERING, and is suitable for small steam pipes.

*By this combination, the great objection to the use of Hair Felt is entirely overcome.*

Our DOUBLE AIR-CHAMBER COVERING is formed in a similar manner, using two layers of best quality  $\frac{1}{2}$  inch Hair Felt, with an additional layer or envelope of the non-porous, FIRE-PROOF ASBESTOS SHEATHING, the whole being covered with cotton canvas to prevent injury from abrasion.

TRIPLE AIR-CHAMBERS can also be formed for special purposes.

Where there is special danger from external fire, an outside layer of the fire-proof ASBESTOS SHEATHING may be added; or the canvas painted with our Fire-proof Paints.

For STEAMSHIP BOILERS, etc., a superior Covering is formed by using our ASBESTOS BOILER LAGGING described elsewhere.



## PRICE LIST FOR MATERIALS

*complete, including canvas.*

SINGLE AIR-CHAMBER COVERING, per square foot, flat measure, **21 cts.**  
 DOUBLE AIR-CHAMBER COVERING, " " " " **26 cts.**

### Price per Lineal Foot on Regular Sizes of Pipe.

Sizes of Pipe.	$\frac{1}{2}$ in.	$\frac{3}{4}$ in	1 in.	$1\frac{1}{2}$ in	2 in.	$2\frac{1}{2}$ in	3 in.	$3\frac{1}{2}$ in	4 in.	5 in.	6 in.
	cents	cents	cents	cents	cents	cents	cents	cents	cents	cents	cents
Single Air-Chamber Covering.....	10	12	14	17	20	23	26	29	32	38	45
Double Air-Chamber Covering.....	18	22	24	28	32	36	40	44	48	58	68

## INSTRUCTIONS FOR APPLYING THE ASBESTOS AIR-CHAMBER COVERINGS.

*We recommend the AIR-CHAMBER COVERING for all ordinary purposes where steam pressure is not over 90 lbs.*

First cover all surfaces with two thicknesses of the ASBESTOS LINING FELT which should be cut in lengths of one inch more than twice the circumference of the pipes, and wound twice around in sections, fastening with a single turn of common twine. Then cut the Hair Felt cross-wise of the sheet in strips  $1\frac{1}{2}$  inch wider than the circumference of the covered pipe, and bind firmly over the ASBESTOS LINING FELT with twine, winding spirally with four or five turns to the running foot. Next cut the ASBESTOS SHEATHING cross-wise of the sheet, in lengths two or three inches wider than the circumference of the Hair Felt—tie temporarily, and paste the lap with common flour paste, applying carefully so the surface will be smooth. This forms the SINGLE AIR-CHAMBER which is suitable for small (one inch or less) steam pipes, "return and exhaust" pipes, etc.

To form DOUBLE OR TRIPLE AIR-CHAMBERS, add alternate layers of Hair Felt and SHEATHING, and finish with canvas.

When covering BOILERS, apply in the same manner as when using Hair Felt.

*If used around fire doors or fire-heated surfaces*, the edges of the AIR-CHAMBER COVERINGS should be bound with strips of tin or zinc to lap three or four inches on BOTH sides, and fastened with "clinch" nails driven through holes punched in the strips; or the Covering may be cut three or four inches short of the fire doors, etc., and the spaces covered and finished with our ASBESTOS CEMENT FELTING.

### HEATER AND SMOKE PIPES FROM FURNACES, Etc.,

should be covered with three or four thicknesses of the ASBESTOS LINING FELT, and finished with the ASBESTOS SHEATHING, which can be cemented with common flour paste.

# H. W. JOHNS'

PATENT

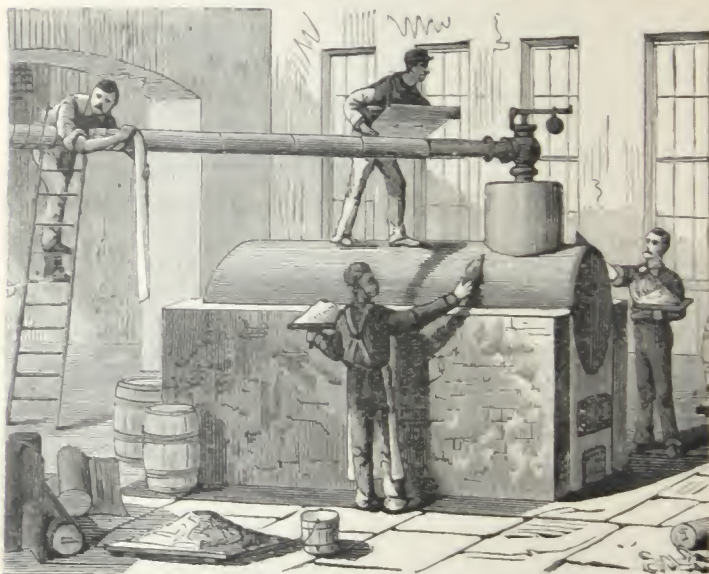
# ASBESTOS

## CEMENT FELTING.

**FOR COVERING STEAM-PIPES, BOILERS, STILLS AND OTHER STEAM AND FIRE-HEATED SURFACES.**

*We advise the use of the ASBESTOS CEMENT FELTING on stationary Boilers, Pipes, and all Surfaces where steam pressure is over 90 lbs.*

*Our ASBESTOS HOT-BLAST CEMENT FELTING should be used on Hot-Blast Pipes, Smoke Pipes and superheated Surfaces.*



Mode of applying H. W. Johns' Asbestos Cement Felting and Air-Chamber Covering.

*There is no other ASBESTOS Cement Felting. There are inferior mixtures which have been made and so-called by unscrupulous manufacturers, and it is therefore important that purchasers should send for samples and examine the material they purpose using before making contracts, and also to see that the material used corresponds with samples.*



THE *genuine* ASBESTOS CEMENT FELTING is composed of fibrous ASBESTOS and a cementing compound, forming a light, porous Covering partaking of the nature of a *felt* and a *cement*, to be used as a mortar and applied with a trowel to Steam-Pipes, Boilers, Stills, etc., while heated.

The ASBESTOS CEMENT FELTING is a *strictly first-class article*, containing no mud, refuse hair, or other cheap or offensive ingredients, and forms a more effectual non-conductor than any other cement, mortar or so-called "felting" of equal, or even greater thickness, the saving of heat being *real* as well as apparent. This is not the case with the common cement coverings, *which, being usually applied twice as thick, furnish a larger radiating surface*, by which many are deceived.

It is put up *dry*, in barrels, to be mixed with water to the consistency of mortar, and can be easily applied by any ordinary mason or plasterer. One bbl. covers a flat surface of about 45 sq. ft., 1 inch thick, and weighs about 200 lbs. Per bbl.....\$4.00

## ASBESTOS HOT-BLAST CEMENT FELTING.

For *Fire-Heated Surfaces*, Hot-Blast and superheated Pipes, etc. It also forms an absolutely fire-proof "filling," or deadening for floors of factories, store houses, etc. Per bbl.....\$6.00

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Particular attention is called to the following advantages of the  
**ASBESTOS CEMENT FELTINGS** over all other Cements  
 or so-called "Feltings."


ASBESTOS, of which our CEMENT FELTING is partly composed, possesses stronger fibres than hair, and cannot be injured by fire or the most intense heat.

It weighs only about one-half as much as the common boiler cements or mortars.


Less material being required, pipes covered are smaller and neater. Only one kind of material is required.

No danger of cracking from expansion of pipes.

Effectiveness, durability and cost considered, it is more economical.

 It contains no ingredient that will generate acid, which is destructive to iron.

## INSTRUCTIONS FOR APPLYING H. W. JOHNS' CEMENT FELTING. TO STEAM-PIPES, STATIONARY AND STEAMBOAT BOILERS, STILLs, ETC.

 We advise the use of the ASBESTOS CEMENT FELTING on stationary Boilers, Pipes, and all surfaces where steam pressure is over 90 lbs.

Our ASBESTOS HOT-BLAST CEMENT FELTING should be used on Hot-Blast Pipes, Smoke Pipes and superheated surfaces.

First, mix a small quantity of the CEMENT FELTING with water, just thin enough to be rubbed or brushed on the surface to be covered; this will dry very quickly and form a coating to which the CEMENT FELTING will adhere firmly.

Second, mix the required quantity with water to the consistency of ordinary stiff mortar, working it thoroughly with a hoe until the whole mass is perfectly amalgamated; then apply with a trowel small patches or lumps to form a rough surface preparatory for the next coating; after which apply additional scratch coats about  $\frac{1}{2}$  an inch thick, until the desired thickness is attained. *Each coat should be dry* before the next is applied.

The first coat can be more easily applied if Boiler or Pipes are only partially heated,

The thickness ordinarily required will be about as follows:

ON STEAM-PIPES under 1 inch diameter, - - - 1 inch thick.

" " 1 inch diameter and upward, - 1 to 2 "

ON STEAM BOILERS, DOMES, STILLs, &c., - 1  $\frac{1}{2}$  to 2 "


Steam Pipes, Stills, etc., which are exposed to the weather should be encased with wood, or coated after the CEMENT FELTING is dry, with our ASBESTOS ROOF PAINTS.

The ASBESTOS CEMENT FELTING may be applied to all surfaces in the same manner as in using common mortar, taking care to hold it in place until it is "set." After the last coat is dry it may be painted, if a handsome finish is desired, with our Fire-Proof Paint.

On surfaces of Boilers, Flues, Stills, Vats, Vacuum Pans, etc., the CEMENT FELTING should be secured with wires passing down through the CEMENT FELTING every three or four inches.

### ON HOT-BLAST PIPES, SMOKE STACKS

and other superheated or fire-heated surfaces, the ASBESTOS HOT-BLAST CEMENT FELTING should be applied from 2  $\frac{1}{2}$  to 3  $\frac{1}{2}$  inches thick, according to the degree of heat, fastening with annealed wire wound two or three inches apart *after* one inch in thickness has been applied; or apply two or three layers of ASBESTOS LINING FELT, (wiring each layer separately so as to form air spaces between them,) and cover with 1  $\frac{1}{2}$  to 2 inches of the ASBESTOS HOT-BLAST CEMENT FELTING.

 For the better protection of our customers and ourselves, we request that the tin labels on heads of barrels be attached in a conspicuous place on pipes or boilers after the work is finished.

## TO USERS OF STEAM.



WITHIN the past few years particular attention has been given by practical engineers to the economical production and utilization of steam, and valuable appliances such as Heaters, Condensers, Traps, etc., have been invented, which have, to some extent, effected a saving of fuel. But in the direction which is of greatest importance, *i. e.*, the prevention of *radiation* from heated surfaces, but little improvement had been made over the Hair Felt Jackets in common use until we discovered and demonstrated the value of Asbestos Coverings, in the use of which, by our improved methods, we produced results never before attained in preventing loss of heat, thus saving a large percentage of fuel and also enabling us to carry steam greater distances than had ever before been found practicable, with little or no loss of pressure.

Hair Felt, covered with a painted canvas, has proven the most effective non-conductor for these purposes previous to the introduction of our Asbestos Coverings, and so long as it remains uninjured, forms a desirable protection : but, as is well known, hair in contact with heated surfaces soon loses its vitality and becomes a dry, crisped mass, possessing no non-conducting power.

Many Cements and so-called "Feltings," have been sold and applied for preventing radiation from heated surfaces, none of which have proven durable or satisfactory as *real* "non-conductors." Most of these mixtures, sold under various names, have few advantages over common mortar ; but when applied in thick masses they are deceptive, as they



furnish a large radiating surface and thereby *apparently* effect a saving which is not real. For instance, an uncovered  $\frac{3}{4}$  inch pipe filled with steam will show a certain quantity of radiated heat. The radiating surface of this pipe is about 38 square inches to the running foot. Cover this with any of the mixtures referred to, say  $1\frac{1}{2}$  inches thick, as ordinarily applied, and the radiating surface is increased to 150 square inches, or about *four times the original surface to radiate the same quantity of heat* : such a covering will be comparatively cool to the touch, but a proper *thermometric* test will show that nearly the same quantity of heat is lost as though a thinner coating were applied, owing to the fact that the covering is in no sense a "non-conductor." Other forms of covering, such as a *continuous* air space between the heated-surface and the covering, which serves as a ventilator or draught to carry off the heat, rendering the covering and the surrounding air cool, and with other palpable deceptions and faults which can be named, are equally valueless ; and in consequence of these imperfections, it has become a settled conviction in the minds of many, that the usual quantity of coal must be burned to produce the required steam power.

In view of these facts, we cannot too strongly urge upon users of steam the importance of securing safe, reliable, permanent and *effective* non-conductors for Steam-Pipes and Boilers, and we are prepared to prove to the satisfaction of every one that there are none which in these respects equal our improved Asbestos Coverings.

THE business of applying Non-conducting Coverings to steam-pipes, boilers, etc., has long been considered a sort of "craft" which none but the initiated could understand, and owing to the deception in measurements—such work being usually charged for by the superficial foot *measured after completion of the work*—its cost has always been surprising to users of steam. Our improved appliances for these purposes can not only be readily applied by unskilled workmen, but we have tabulated their cost so that the total expense can be easily ascertained by taking the lineal measurements of pipes, and surface measurements of boilers and other large surfaces; and by comparing our prices with those usually charged for inferior coverings (which require to be from 25 to 50 per cent. thicker than ours), it will be apparent that a considerable economy of cost can be effected and better and more durable results attained.

Many instances are known where buildings and steamships have taken fire from **HAIR FELTS** in contact with steam-heated surfaces. This cannot occur where our **ASBESTOS COVERINGS** are used.

These appliances have been thoroughly tested in the largest manufactories, public buildings, etc., and have shown results in saving heat and fuel far exceeding those obtained by any other known methods.

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*Estimates of cost of Asbestos Coverings, with advice as to requirements of special cases, will be furnished upon receipt of lengths and sizes of pipes, or description and measurement of the surfaces to be covered, and number of pounds of steam pressure.*

H. W. JOHNS'

PATENT

ASBESTOS

## LINING-FELT.

A non-conducting, Fire-Proof Covering for Steam and Heater Pipes, Boilers, Etc., and for lining under Hair Felt.



This article is strictly *fire-proof*, and consists of *pure* ASBESTOS SHEATHING, to one side of which is attached a layer of "flocked" or felted ASBESTOS. It is used under Hair Felts on steam pipes, boilers, etc., forming an insulating cushion or non-conducting lining, adding greatly to the non-conducting qualities of Hair Felts, and forming a valuable protection for them against the injurious effects of heat.

It also forms a valuable covering for HEATER PIPES in dwellings, saving a large percentage of heat otherwise lost in cellars which, with this appliance, can be delivered through the registers. See instructions, page 3. In rolls 50 feet long, and 12, 18, 24 and 42 inches wide.

Per square foot.....6 cts.

NOTE.—All our Asbestos fabrics are non-conductors of Electricity as well as of heat and cold.



## ASBESTOS BOILER LAGGING.

This article is made of large, loose strands of ASBESTOS bound together by a fine warp of ASBESTOS, and forms a strong, matted, felt-like material of great non-conducting power. It is fire and acid proof, and forms the most effective and durable "Lagging" or Covering known, for locomotive and other boilers and all heated surfaces.

~~As~~ This is the only removable non-conducting covering for Boilers and Pipes on steamships which is *absolutely fire-proof*: and all danger of fire is avoided by its use in place of Hair Felt, etc.

This article has many other valuable uses, such as fire-proof lining for partitions, floors, carpets, etc.

It is about three-eighths of an inch thick, and is manufactured in rolls of 30, 36 and 42 inches in width and of any desired length. It will be made to order of different widths and thicknesses for special purposes. Per square foot.....25 cts.

## ASBESTOS & HAIR LAGGING.

This article is similar to our Asbestos Lagging, but contains 25 per cent. of best hair, and is equally desirable for all ordinary purposes.

It is very elastic, and owing to the large proportion of Asbestos is practically fire-proof.

Per square foot.....20 cts.

## HAIR FELT.

For covering boilers, steam and water pipes, lining and sheathing ice-houses, deadening floors, etc.

Best quality, per sq. ft. ....  $\frac{1}{2}$  inch. 5 cts. ;  $\frac{3}{4}$  inch, 6 cts. 1 inch, 7  $\frac{1}{2}$  cts.

Ordinary do do .... " 4  $\frac{1}{2}$  " " 5  $\frac{1}{2}$  " " 7 "

## ASBESTOS PISTON PACKING.

Our improved Asbestos Packing, recently perfected, has been subjected to the severest tests, and is composed exclusively of the best quality of pure Asbestos fibre made in the form of a compact rope, the strands of which may be separated or combined to fit stuffing boxes or joints of any size or shape, forming the most perfect, compact and durable packing ever produced for locomotive, marine and other engines, valve-stems, oil pumps, etc. It is to a great extent self-lubricating, requiring less oil than any other, and the cheaper kinds of oil made from petroleum, work equally well with it as lard or sperm. It will *wear ten times as long* as ordinary packings, and is indestructible by acids or long exposure to dampness or any degree of heat. It is finished with a hard smooth surface, to prevent the adhesion of dust or gritty substances, but with slight handling will become as soft and pliable as the best hemp or cotton packing.

In regular sizes from  $\frac{1}{4}$  to 2 inches in diameter. per lb.....45 cts.

On reels containing from 25 to 50 lbs. per lb.....40 cts.

Square Braided Packing will be made to order.

## ASBESTOS WICK PACKING.

This article is composed of the purest and finest Asbestos Fibre, in form of a soft, strong "lamp wick," which can be wound or packed in any desired shape around small steam and other valve-stems, pumps, etc., and owing to its being strictly acid and fire-proof is valuable for use in chemical works, etc. In 1 lb. balls. Per lb.....45 cts.

In full cases of 50 lbs. Per lb.....40 cts.

## ASBESTOS PREPARED FIBRE.

For packing journal boxes, filtering chemicals and wiping galvanized wire, etc. In packages of 1 lb. and in bulk. Per lb., 20 cents.  
EXTRA-FINE CARDED FIBRE. Per lb.....25 cts.

*NOTE.—The cotton with which other Rope and Wick Packing is adulterated, can be easily distinguished by applying a lighted match.*

NOTE.—All our Asbestos fabrics are non-conductors of Electricity as well as of heat and cold.

**ASBESTOS MILL-BOARD or FLAT PACKING.**

This article is composed wholly of *pure Asbestos* and is strictly fire and acid proof. It forms an economical and durable **FLAT PACKING** for flange-joints, hot-air joints, steam pumps, etc., cylinder heads, man-hole plates of steam boilers, oil stills, etc., and is especially valuable where superheated steam is used. It can be removed and replaced without injury, and will wear *ten times as long* as any other. It is also used for covering locomotive boilers, for fire screens, partitions, linings under stoves, grates, etc.

In sheets of 40x40 inches, from 1-32 to 1-2 an inch thick, weighing from 1½ to 18 lbs. Per lb. .... **22 cts.**  
In cases of 200 and 400 lbs., per lb. .... **20 cts.**

**ASBESTOS GASKETS & RINGS.**

All sizes not exceeding 40 inches outside diameter, from 1-32 to 1-2 an inch thick, cut to order from our *Asbestos Mill Board*—weight less than one-half as much as India Rubber Gaskets. Regular shapes, round or square, per lb. .... **50 cts.**

Rings and Washers, 3 inches or less in diameter, per lb. .... **\$1.00**

*Send pattern or drawing with orders for irregular shapes.*

**ASBESTOS & RUBBER TAPE.**

This is a braided Asbestos band, or Tape, covered with our improved Asbestos & India-Rubber composition and forms the most durable gaskets, washers and rings for Steam Joints, Cylinder Heads, Man-hole and Hand-hole Plates, etc. It can be easily bent into the required shape and removed and replaced without injury.

On reels of about 50 lbs. Per lb. .... **\$1.00**

**ASBESTOS & RUBBER CLOTH.**

This material is composed of Asbestos Cloth, covered on both sides with our improved composition of Asbestos and India-Rubber, and forms the most durable flat or sheet packing ever made. It can be cut into any desired form, and being very elastic, will adapt itself to all uneven surfaces, forming a perfect joint, steam, acid and air tight. It weighs about 12 ounces per sq. ft., and is made in rolls 22, 29, 36 and 42 in. wide. It will be made two or more ply to order. Per lb. .... **\$1.00**

**ASBESTOS & RUBBER GASKETS & RINGS.**

Rings with cemented lap joints will be made to order from our Asbestos & India-Rubber Tape, on receipt of memorandum of sizes, widths and thicknesses required. Per lb. .... **\$1.50**

NOTE.—All our Asbestos fabrics are non-conductors of Electricity as well as of heat and cold.



## ASBESTOS CLOTH.

We manufacture several varieties of ASBESTOS CLOTH, the first quality of which is composed exclusively of pure, long-fibre ASBESTOS. It is strictly fire-proof, unaffected by acids, mineral oils, etc., and is extensively used for filtering acids, etc. It is particularly valuable as a filter cloth for domestic purposes and in sugar works, etc., and is also made into aprons, mittens, screens, etc., for use in smelting works, iron and steel furnaces, etc., as a protection against heat and red hot metal.

We also manufacture ASBESTOS CLOTH to order for special requirements.

Per yd., 22 in. wide ; . . . . .	\$2.25	Per yd., 36 in. wide ; . . . . .	\$3.25
“ 28 or 29 “ . . . . .	2.50	“ 42 “ . . . . .	3.75

(Our Standard Asbestos Cloth weighs about 1 $\frac{3}{4}$  lbs. per square yard. For heavy weights special prices will be given.)

## ASBESTOS PRINT-ROLLER CLOTH.

This is a very thick fabric, woven from our Asbestos Cord. It is acid proof and is used for covering rollers in print works, etc. It is made to order of any desired width. Per square yard. . . . . \$6.00

## ASBESTOS CORD.

This is a strong, hard-finished, six strand Cord about one-eighth of an inch diameter. It is valuable for suspending Metals, Retorts, Crucibles etc., in contact with fire, and for winding around carrying rollers in print works ; also for use in chemical and acid works. It is fire and acid proof. In 1 lb. balls, per lb. . . . . 75 cts.

## ASBESTOS TWINE.

This is a strong, hard-finished three strand Twine about one-fifteenth of an inch diameter. It is fire and acid proof, and is used for purposes similar to those described for our Asbestos Cord ; also for sewing Asbestos Cloth and for insulating Electric and other wires. etc. In 1 lb., balls, per lb . . . . . \$1.00

## ASBESTOS YARN.

This is a two ply, soft-finished fine-spun yarn, and is used for packing small glands, gauge glasses, etc., in steam and chemical works, and for philosophical and chemical instruments ; also for the manufacture of our Asbestos Cloth. It is fire and acid proof, and will be made 3, 6, or 12 ply to order. In 1 lb. balls, per lb . . . . . 75 cts.

## ASBESTOS THREAD.

This is a very strong, fine, hard-finished thread, and is used for sewing or binding materials or articles exposed to the action of fire or acids ; also for fine philosophical and chemical apparatus and the manufacture of fine cloth, etc.

In 1 lb., balls, per lb. . . . . \$5.00

**ASBESTOS SHEATHING.**

This is a strong, white Sheathing, composed of pure Asbestos, and is strictly fire-proof. It is used for lining wood partitions and ceilings, fire screens, and other surfaces in danger of ignition by fire. In rolls of from 60 to 100 lbs., 42 inches wide, weighing from 5 to 6 lbs. to 100 sq. feet. Also, DOUBLE THICK ASBESTOS SHEATHING, about 10 lbs. to 100 sq. ft.

Per lb.....20 cts.

**ASBESTOS BUILDING FELT.**

is composed entirely of Asbestos, and is strictly fire-proof. It is used under floors, shingles, weather-boards, etc. In rolls of about 70 lbs., 36 inches wide, weighing about 10 lbs. to 100 sq. ft.

Per lb.....15 cts.

**ASBESTOS PAPER.**

This is a strong, white, fire-proof paper, composed of pure Asbestos. It is supplied in rolls 39 inches wide, weighing about 4 lbs. to 100 sq. feet, and in sheets of 36 x 47 inches, about five sheets to 1 lb.

Per lb.....\$1.50

**ASBESTOS.**

All grades prepared for Special Purposes.

**BLACK LUSTRE VARNISH.**

This is a quick-drying Varnish adapted for coating heated iron work, such as Smoke Stacks, Steam Pipes, etc., and for the use of manufacturers of Steam Boilers, Iron Castings, etc., for which purposes it is as durable as the finer varnishes. Steam and dry heat will not injure it.


Bbls. & Kegs : 50 to 40 gals. | 20, 15 & 10 gals. | 5, 3 & 2 gals. | 1 gal.

Per Gal. U. S.      35 cts.      |      40 cts.      |      45 cts.      |      50 cts.  
Standard Measure,

**ASBESTOS GLOVES, MITTENS, ETC.**

These articles are made only to order. Full particulars in regard to cost, etc., will be furnished on application.

## ASBESTOS FIRE-PROOF PAINTS.

 This Paint has been applied to nearly five acres of wood work in the two immense Dry Goods Stores of Messrs. A. T. Stewart & Co., of New York City.

These are strictly fire-proof Paints, composed solely of ASBESTOS and other fire-proof ingredients, prepared ready for use *exclusively* for *inside work*.

They are designed especially for the protection of interior wood work in Factories, Cotton-Gin Houses, Boiler Rooms, Railroad Buildings, etc., for which purposes they are as durable as ordinary oil paints and afford a valuable protection against burning sparks, cinders or light flames. One gallon will cover about 150 square feet, two coats. They are supplied in white and very light tints, and cost only about one-third as much as the ordinary liquid paints.

It is not claimed that these Paints render wood or other inflammable material *absolutely* fire-proof, but they afford the best known protection in the form of a paint against ignition of such materials when exposed to sparks and light flames.

They contain no oil, but can be applied in the same manner as oil paints. Two coats are recommended. If found necessary to thin them, use a very little warm water. Where greater protection against fire is necessary, this paint may be applied over our ASBESTOS CONCRETE COATING,

BELS. & KEGS: 45, 40 and 30 gals. | 20, 15 & 10 gals. | Pails, 5, 3 & 2 gals. | 1 gal.

Per Gal. U. S.      65 cts.      |      70 cts.      |      75 cts.      |      80 cts.  
Standard measure.

## ASBESTOS CONCRETE COATING.

This coating is strictly fire proof and is made of proper consistency to be applied with a trowel, forming a covering resembling stone, which has proven an effective protection for beams, posts, partitions, roof boards and other inside rough wood-work exposed to flames or intense heat, and is invaluable in boiler rooms, basements and lofts of warehouses, factories, etc., as a protection against fire.

It is not claimed that surfaces thus protected cannot be destroyed by fire, but it will greatly retard the action of flames and will withstand intense heat—100 lbs. will cover about 200 sq. ft.  $\frac{1}{16}$  of an inch thick.

In Casks of about 400 lbs., per lb. .... 5 cts.  
In Kegs of from 200 to 100 lbs., per lb. .... 6 cts.



## ASBESTOS RETORT CEMENT.

This article is composed of pure ASBESTOS FIBRE combined with other fire-proof material and cementing matter which has a peculiar affinity for ASBESTOS, and when subjected to intense heat will vitrify without shrinking, thus rendering it of great value in repairing broken FIRE CLAY AND OTHER RETORTS, PIPES, &c., which can by its use be made as strong and perfect as when new. It is offered as the strongest and most durable article ever produced for the purpose.

This Cement is now in general use in gas works, acid and oil works, for cementing fittings and taps, connecting pipes, mouth-pieces, flange and pipe joints, etc., and for coating new clay or iron retorts and pipes, lining furnace doors, &c., and is especially valuable for use around nitric and sulphuric acids, petroleum oils, etc., as it effectually prevents the escape of vapors.

It is supplied ready for use, *thick* for Patching &c., *thin* for Coating &c. can be easily applied with a trowel, and hardens rapidly.

In Casks 500 to 400 lbs. per lb.	6 cts.		In 50 & 25 lb. Pails per lb.	8 cts.
" Kegs 200 to 100 "	" 7 "		" 10 lb. Cans, each	\$1.00.

## ASBESTOS PLASTIC STOVE-LINING.

This article is composed of Asbestos and other fire-proof materials, prepared ready for use in the form of a *plastic cement* which can be easily applied with a trowel, forming a durable and economical lining for cooking and heating stoves, grates, ranges and furnaces, and for lining fire doors of boiler furnaces, etc. It is also useful for repairing stove and flue joints, broken fire-brick, iron linings and other surfaces exposed to fire heat, and is invaluable as a *Fire Mortar* for laying Fire Brick in boiler furnaces, etc., as it will not burn out, and clinkers will not attach to it.

It is put up in cans, pails, and in kegs and casks for the use of manufacturers of iron, glass, chemicals. etc.

Casks, 400 to 500 lb. per lb.	6 cts.
Kegs, 100 to 200 lbs., " " 6½ cts.	Cans, 10 lbs. per lb. 7½ "
Pails, 25 to 50 lbs., " " 7 "	" 5 " " " 10 "

## ASBESTOS GASKET CEMENT.

This Cement is acid and water proof, and forms a perfectly air tight joint between layers of our Asbestos Mill-Board where very thick Gaskets or linings are required. It may also be applied directly to steam or other heated joints where Gaskets cannot be conveniently used. To be applied with a trowel or stiff brush.

In 1, 2, & 5 lb. Cans, per lb., ..... 20 cts.

## TESTIMONIALS.

During the past twenty-six years we have received thousands of testimonials and commendatory letters, and we append copies of a few, which, coming from well-known and authentic sources, will be sufficient proof of the superiority of our manufactures; and as our goods are in general use in all parts of the country, we can refer those interested to parties in their vicinity who can speak from experience as to their value and desirability.

Many instances are known where buildings and steamships have taken **fire from hair felts** in contact with steam-heated surfaces. This cannot occur where our Asbestos Coverings are used.

Arnold Print Works, North Adams Mass., Jan. 18th, 1878.

DEAR SIR:—We are well pleased with the Double Air-Chamber Covering put on for us by your Company. Before we decided to use your Covering, we gave the matter considerable attention, and satisfied ourselves that it was *the best Covering for Steam-Pipes in the market*, and can say it is far superior to the covering of ——— Co., having used both.

Respectfully yours,

A. C. HOUGHTON, Treas.

The Union Iron and Steel Company.

Chicago, Nov. 18th, 1882.

DEAR SIR:—This Company now have in use your Asbestos and Hair Felt (Double Air-Chamber) Covering on Steam-Pipes, aggregating over twelve thousand (12,000) square feet of surface.

I think the combination a good one, and am so well satisfied with the results, that I am having all our new pipe connections covered in the same manner as fast as they are completed.

Yours very truly,

R. R. JONES, Gen'l Supt.

Steamer JESSE HOYT, New York, April 13th, 1882.

DEAR SIR:—Having used your Air Chamber Covering on the boilers of this boat, I take pleasure in stating that I consider it superior to any covering I have heretofore used, and better than any of which I have knowledge.

The Asbestos Lining Felt protects the Hair Felt more thoroughly than you claimed.

Yours truly,

SAMUEL SAULT, Chief Engineer.

West Broadway, Reade & Hudson Sts., N. Y., Aug. 2d, 1877.

DEAR SIR:—In my application of it, as Boiler and Steam Pipe Covering, your Asbestos Felting (single and double air chamber) gives most complete and thorough satisfaction, and is far superior to any of the various non-conductors that I have tried or am familiar with. I very willingly recommend it to Engineers and the public generally as the best non-conductor of heat that has been put upon the market

Yours respectfully,

CHAS. D. DOUBLEDAY,

Engineer for H. K. & F. B. Thurber & Co.

Chicago, Ill., Sept. 19th, 1883.

DEAR SIR:—Our experience with the Asbestos Gaskets bought of you in 1882 convinced us that they were preferable to rubber for exhaust or live steam, and for steam heating and kindred purposes. We now use them exclusively.

Respectfully,

SARGENT, GREENLEAF & BROOKS.

William Burden, the eminent engineer, says of H. W. Johns' Asbestos Double Air-Chamber Steam Pipe & Boiler Covering, "it is the only Covering I ever saw, based on strictly scientific and mechanical principles."

Office City Water Works, Cincinnati, April 16th, 1880.

I take pleasure in stating that of all the coverings now in use at City Water Works, embracing 15,000 square feet of various kinds, the H. W. Johns' Asbestos Air-Chamber Covering is by far the best, not only in efficiency but also in durability and lightness

THOM. H. RYON, *Assistant Engineer, in Charge.*

*Extract from Report of W. B. Sheppard, Sup't Utah Mine, Virginia City, Nevada, March 8th, 1879, to Geo. C. Pratt, Secretary.*

"We find that we have saved about fifty (50) cords of wood the past month by having our drum and pipes covered (H. W. Johns' Covering,) at a cost of \$700. Saving fifty cords at \$11.50—\$575.

Savannah Cotton Press Association, Savannah, Ga., November 10th, 1881.

DEAR SIR:—This Association has four batteries of boilers and their pipe connections covered with your Asbestos Cement Felting. I am fully satisfied we save at least fifteen per cent. in fuel over the old method of covering with brick work.

Yours respectfully,

SAM'L J. WHITESIDES, *Chief Engineer.*

St. Louis & Vicksburg Anchor Line Stores, St. Louis, Mo., Feb. 16, 1883.

DEAR SIR:—In reply to yours of the 15th inst. would state that we use the Asbestos Retort Cement to cover our Fire Fronts and Liners, and by so doing find a great saving in castings. \* \* \* We are well pleased with the result, it being the only article we have found to protect our liners.

I am yours very truly,

W. H. LANGDALE Manager,

Custom House, Chicago, Ill., Collectors Office, Sept. 19, 1883.

GENTLEMEN:—I will say that the covering you put on the Custom House pipes about one year since has given entire satisfaction, and is in as good condition as the day you finished the job. Respectfully yours

M. M. HALBRIDGE, *Chief Engineer U. S. Custom House & P. O.*

BEADLESTON & WOERZ, *EMPIRE BREWERY,*

291 West 10th St., New York, Aug. 31st, 1880.

GENTLEMEN:—Having used your Asbestos Cement Felting on boilers, Asbestos Single and Double Air Chamber Coverings on steam pipes, heaters and tanks, and your Special Covering for cold water tanks and pipes, I take pleasure in saying that all of them are superior to any other coverings I have ever seen, and even better than stated by you.

[Signed]

JOHN K. STOUT, *Engineer.*

MR. \_\_\_\_\_

New York, Nov. 21st 1882.

DEAR SIR:—The H. W. Johns Manufacturing Company is doing our covering of pipes and boilers, and we continue to give them orders. They give perfect satisfaction

Yours, &c.,

BEADLESTON & WOERZ.

National Museum, Washington, D. C., July 12, 1881.

DEAR SIR:—The Covering you applied to the steam pipes *i. e.*, your Air Chamber Covering, finished with your Fire-Proof Paint, has given perfect satisfaction in every respect, and I consider it superior to any other covering now in use. Since it was put on I have had occasion to remove some, and it has been replaced without loss of material.

A. A. DULY, *Chief Engineer.*

Office of FULLER & FULLER, Chicago, Nov. 1, 1882.

GENTLEMEN:—The Steam Pipe Covering applied by you in May last has given the utmost satisfaction. I have tested it and find it perfectly indestructible, and it seems destined to last for many years.

Yours respectfully,

J. D. THOMPSON, *Engineer for Fuller & Fuller*



ST. FRANCIS XAVIER COLLEGE, 39 W. 15TH ST., NEW YORK. Nov. 15, 1882.

GENTLEMEN:—Before using your Air Chamber Coverings on our pipes we were losing actual test by steam gauges eight (8) pounds pressure between boiler and trap or receiver; now the loss is so slight that we can scarcely distinguish it. Our saving of coal by its use is at least thirty (30) per cent.

BROTHER McCLOSKEY, Engineer.

CENTRAL PACIFIC RAILROAD CO.,

California Pacific Railroad and Stockton and Copperopolis R. R.  
Office of the General Master Mechanic.

Sacramento, Cal., Aug. 6th, 1877.

GENTLEMEN:—Regarding H. W. Johns' Asbestos Cement Felting, will say we have it in use on several of our Steamboats and Stationary Boilers. It is giving entire satisfaction in every instance, and I have no hesitation in saying it is equal to anything we have ever used for the purpose.

Yours truly,

A. J. STEVENS, G. M. M., C. P. R. R.

Duluth, Minn., Sept. 22, 1883.

DEAR SIR:—Last Spring we covered our boiler with your Asbestos Cement Felting, and find that the boiler makes steam better and does her work on twenty-five per cent. less fuel, and we are very much pleased with it. Until we covered the boiler with your Asbestos Cement we could not make steam enough and now have all the steam we want.

Yours truly,

F. B. DAUGHERTY & CO.

Chicago and Grand Trunk R'way Co.

Locomotive Department, Fort Gratiot Station, }  
June 16th, 1883.

DEAR SIR:—The Westinghouse Air Pump on Engine 73 was packed with Asbestos Wick Packing Nov. 13th, 1882. Since that time I have run the engine 27,900 miles on passenger trains. The packing was examined to-day, and apparently will be good for a year longer. The stuffing box nuts have been screwed up  $\frac{1}{4}$  turn on the air cylinder and one turn on the steam side during that time, and I have never noticed it leak.

Yours truly,

C. B. CONGER, Engineer, Engine 73.

Boston, Sept. 8th, 1882.

GENTLEMEN:—In reply to yours of the 2d inst., will say, as far as the economy of the patent combination of Asbestos and Hair Felt (Air Chamber Covering) is concerned, I should not hesitate to recommend it to any one: the durability of the covering is one of the best arguments in its favor, as it bids fair to out-last any covering I have ever seen or tried. The radiation from pipes covered with the Covering is so slight as to be scarcely perceptible, the outside of the covering being barely warm, while pipes covered with Cement coverings you cannot bear your hand upon.

Yours very truly,

[Signed]

GEORGE A. LORD,

Chief Engineer, Boston University.

Naval Constructor's Office, Navy Yard, New York, Dec. 9, 1880.

SIR:—I would respectfully report that the two boilers located in the smithery have been covered with H. W. Johns Manufacturing Co.'s Asbestos Non-conducting Covering—the work has been done thoroughly and satisfactorily. Since completion of the work there has been a saving in the consumption of coal of about thirty per cent.

Very respectfully, your obedient servant,

To Commodore Geo. H. Cooper, U. S. N.,  
Commandant Navy Yard, New York.

GEO. R. BOUSH,

Naval Constructor.

Citizens' Gas Light Co., Engineer's Office, Cor. 5th and Hoyt Sts., }  
Brooklyn, May 13, 1876.

DEAR SIR:—I have thoroughly tested at these Works your Asbestos Retort Cement for patching retorts, and have found it superior to any Cement or mixture I have ever used for the same purpose: a retort thoroughly repaired with this cement being to all intents as good as new, and will stand any needed scrubbing without needing renewal in the old breaks.

Very truly yours,

WM. HENRY WHITE, Engineer.

Treasury Department, Office of Engineer,  
Washington, Dec. 6th, 1882.

DEAR SIR:—The steam-pipe covering applied by you in this department eighteen months ago has proved very satisfactory: not only as a non-conductor but for its convenience in being removed and replaced without any loss or injury.

Yours &c., THOS. A. GIBSON, Engineer.

Joliet Steel Company, Joliet, Ill., Oct. 24th, 1882.

DEAR SIR:—We have been using considerable of your Asbestos Packing with very good results, and will continue to use it as long as the results are satisfactory.

Yours truly,

H. S. SMITH, Gen'l supt.

Unionville, Conn., July 23d, 1884.

GENTLEMEN:—\*\*\* The rotary covered with Asbestos is apparently doing well. We have no doubt we save considerable steam. Although we have no means of demonstrating the amount of saving effected, we are satisfied with the experiment.

Yours very truly,

PLATNER & PORTER M'FG CO.,

E. B. RIPLEY, Pres't.

The following, among thousands of well-known manufacturers and others have our Asbestos Coverings in use.

Harper & Bros., Publishers.....	N. Y. City.
David Dows & Co., Warehouse.....	" "
Union India Rubber Co.....	" "
Tradesmen's National Bank.....	" "
A. Weber, Pianos.....	" "
Dunham, Buckley & Co., Dry Goods.....	" "
Del., Lack, & Western R. R. Co., Dover, Kingsland, Hoboken and ..	" "
New Jersey Zinc Co.....	" "
Passaic Zinc Co.....	" "
Steamer City of Alexandria .....	" "
Steamer Wilkesbarre.....	" "
Tiffany & Co.....	" "
N. Y. Safety Steam Power Co., Engine and Boilers.....	" "
G. V. Hecker & Co., Flour.....	" "
Wallace & Co., Confectioners.....	" "
H. Clausen & Son Brewing Co.....	" "
Clausen & Price, Brewers.....	" "
Marsh, White & Co., Grain.....	" "
Eagle Pencil Co.....	" "
N. Y. Steam Heating Co.....	" "
Penn. R. R. Co.'s Ferry Boats "Baltimore" & "Chicago".....	" "
Hotel Brandon, Park Avenue.....	" "
The Gramercy, Flats.....	" "
U. S. Barge Office, Battery.....	" "
Chas. Pratt & Co.....	" "
Standard Oil Co.....	" "
Sturtevant Blower Co.....	" "
John Tragesser, Copper Works.....	" "
The A. H. Smith M'fg Co., Steam Fitters.....	" "
Holly Manufacturing Co., Pumps.....	" "
Arnoix & Lecour, Chemicals.....	" "
D. D. Williamson, Chemicals.....	" "
Rosenheim & Strouse, Malsters.....	" "
N. Y. Sunday Mercury.....	" "
Flanagan, Nay & Co., Brewers.....	" "
E. S. Higgins & Co., Carpets.....	" "
West Side Architectural Iron Works.....	" "
The Bradstreet Co.....	" "
Henry Cummins, Capitalist.....	" "
Marx & Rawolle, Glycerine.....	" "
Handren & Robbins, Engine and Boilers.....	" "
Red D Line, Three Steamers.....	" "
Raritan Woolen Mills.....	" "

Chas. Parsons, Bags.....	N. Y. City,
Luyties Bros., Wines.....	" "
Atlas Line, Two Steamers.....	" "
Knowles Steam Pump Co.....	" "
Hon. Demas Barnes.....	" "
Hazeltine & Co., Shippers.....	" "
Boulton, Bliss & Dallett.....	" "
F. N. Dubois.....	9th Ave & 25th St.,
Church & Co.....	Greenpoint N. Y.
N. Y. State Prison.....	Sing Sing, "
William Wright, Engines.....	Newburgh, "
Albany Brewing Co.....	Albany, "
Albany Electrical Light Co.....	" "
Wright Duryea, Starch Works.....	Glen Cove, L. I.
A. Sampson & Son, Oil Cloths.....	N. Y. & Newtown, "
N. Y. Cedar Ware Co.....	Long Island City, "
Garden City Water Works.....	Garden City, "
Franklin Iron Works.....	Franklin, N. Y.
J. H. Starin.....	N. Y. & Glen Island.
Union Metallic Cartridge Co.....	Bridgeport, Conn.
Falls Mills.....	Norwich, "
Sharps Rifle Co.....	Bridgeport, "
Hartford Gas Light Co.....	Hartford, "
Gardner Hall Jr & Co.....	So. Wellington, "
Pepperell Mfg Co.....	Biddeford, Maine.
Worumbo M Fr Co.....	Lisbon Falls, "
Westbrook Mfg Co.....	Saccharappa, "
Lockwood Co.....	Waterville, "
Nashua Mfg Co.....	Nashua, N. H.
Newmarket Mfg Co.....	Newmarket, "
Armory Mills.....	Manchester, "
Burlington Woolen Mills.....	Winoski Falls, Vt.
Greene & Daniels Mfg Co.....	Central Falls, R. I.
Manville Co.....	Manville, "
Greenwich Print Works.....	East Greenwich, "
Browne & Sharpe Mfg Co.....	Providence, "
Union Wadding Co.....	Pawtucket, "
Woonsocket Machine Co.....	Woonsocket, "
Burden Iron Works.....	Brooklyn.
Niagara Steam Pump Co.....	" "
Arbuckle Bros., Coffee and Spices.....	" "
Wallabout Mills, Flour.....	" "
F. E. Pinto Elevator.....	" "
C. M. Evaris, Straw Works.....	" "
White, Potter & Paige Co., Mouldings &c.....	" "
Phenix Chemical Works.....	" "
Cheesebrough Mfg Co., Vaseline &c.....	N. Y. & "
Hardy & Voorhees, Lumber &c.....	B'klyn, E. D., "
Staten Island Water Works.....	West Brighton, Staten Island.
H. S. Hayward, Supt. Motive Power Penn. R. R.....	Jersey City N. J.
Penn. R. R. Co.'s Elevator.....	" "
Henry Lembeck, Brewer.....	" "
H. J. Baker & Bro.....	N. Y. Brooklyn & "
Lombard, Ayres & Co.....	N. Y. & Bayonne, "
N. Y., L. E. & W. R. R.....	Weehawken, "
College of New Jersey.....	Princeton, "
Dolphin Mfg Co., Jute and Hemp.....	Paterson, "
H. Canfield, Mast. Mech. Penn. R. R Shops.....	Hoboken, "
Hoboken Land & Improvement Co.....	" "
Robt. Mayer & Co., Lithographs.....	" "
John Ellis & Co., Oils.....	Edgewater, "
Orange Water Works.....	" "
Theo. M. Marc, Paraffine M Tr.....	Orange, "
S. J. Mills, Dept. of Interior.....	Elizabethport, "
Philip Inch, Chief Engineer, Navy Yard.....	Washington, D. C.
A. G. Menocal, Chief Civil Engineer, Navy Yard.....	" "



Geo. A. McElhenny, Supt. Gas Light Co.	Washington, D.C.
U. S. Capitol	" "
" Pension Building	" "
" Patent Office	" "
" Treasury	" "
Water Works	" "
Bartlett, Hayward & Co.	" "
Board of Education	Philadelphia, Pa.
Cameron Mills	" "
J. Brown & Sons, (Southwark Mills)	" "
Howell & Bros., Paper Hangings	" "
Philadelphia Bank Note Co.	" "
American Steamship Co., Four Steamers	" "
Red Star Steamship Co., Three Steamers	" "
House of Correction	" "
Gautier Steel Co.	Johnstown, "
Scranton Steel Co., Rails &c.	Scranton, "
Sauguonit Silk Manufacturing Co.	" "
The Fuller Coal Co.	Wyoming, "
Kirby, Carpenter & Co.	Chicago, Ill.
Sprague, Warner & Griswald	" "
Armour & Co.	" "
Goss & Phillips M'fg Co.	" "
Soper Bros. & Co.	" "
Alston M'fg Co.	" "
O. B. Green	" "
Geo. W. Tilton, Gen'l M. M. C. & N. W. Railway	" "
S. Wakefield & Co.	Bloomington, "
Anglo American Packing & Pro. Co.	Chicago, and Kansas City, Iowa.
Iron Mountain Furnace Co.	Ironton, Wis.
Custom House	Chicago, Ill.
" "	Providence, R. I.
" "	Newport, "
" "	New Bedford, Mass.
" "	Gloucester, "
City of Boston [Supt Public Buildings]	Boston, "
B. & A. R. R.	" "
O. C. R. R.	" "
Massachusetts General Hospital	" "
Norway Iron Works	So. "
John P. Squire & Co., Pork Packers	East Cambridge, "
Etna Mills	Watertown, "
Walter Baker & Co.	Milton, "
Booth Cotton Mills	Lowell, "
Arlington Mills	Lawrence, "
Pemberton Mills	" "
Old Colony Iron Co.	East Taunton, "
New Bedford Water Works	New Bedford, "
Acushnet Mills	" "
Montagne Paper Co.	Turners Falls, "
Dwight Mills	Chicopee, "
Chicopee M'fg Co.	Chicopee, Falls, "
Fall River Bleachery	Fall River, "
Simonds M'fg Co.	Fitchburg, "
Victoria Mills	Newburyport, "
Freeman M'fg Co.	No. Adams, "
Reed & Barton	Taunton, "
Douglas Axe Co.	East Douglas, "
Geo. H. Gilbert M'fg Co.	Ware, "
Renfrew M'fg Co.	Adams, "
Pacific Guano Co.	Woods Holl, "
Lancaster Mills	Clinton, "
Whitin Machine Works	Whitinsville, "
Washburn & Moen M'fg Co.	Worcester, "
Cocheco M'fg Co.	Dover, "
Whiting M'fg Co, Silverware M'frs.	Attleboro,, "

**PRICE LIST FOR MATERIALS APPLIED**

IN NEW YORK CITY AND VICINITY, of

**H. W. JOHNS'****ASBESTOS****NON-CONDUCTING****STEAM-PIPE  
AND BOILER COVERINGS.**

Prices per lineal or running foot, on Regular Sizes of Pipe.

Sizes of Pipes.	1 inch.	1½ inch.	1½ inch.	2 inch.	2½ inch.	3 inch.	3½ inch.	4 inch.	5 inch.	6 inch.
	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.	cts.
ASBESTOS { 1 in. thick	22	23	24	25	28	32				
CEMENT- { 1½ in. thick			34	38	42	46	50	54	62	68
FELTING { 2 in. thick						60	65	70	80	90
ASBESTOS SINGLE AIR-CHAMBER.....	25	27	28	30	34	38	42	46	52	60
ASBESTOS DOUBLE AIR-CHAMBER.....	38	42	44	48	52	58	64	70	80	90

We call particular attention to the fact that the above prices for covering Steam Pipes, are by the lineal foot and not by the square foot.

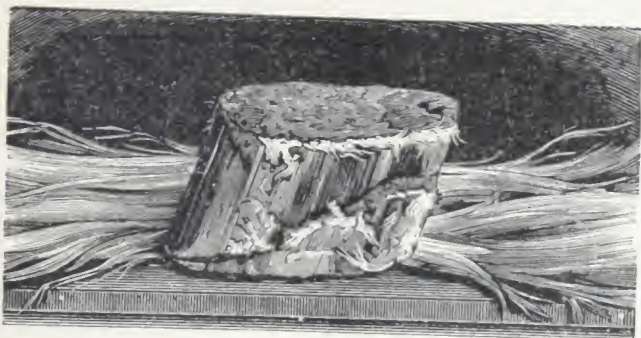
On large jobs, where work is easily reached and applied, liberal discounts will be made on above prices.

**ON STEAM BOILERS, STILLs, LARGE PIPES, &c.**

ASBESTOS CEMENT FELTING, 1 inch thick, per Square foot,	-	20 cents.
" " " 1½ " " " " " "	-	26 "
" " " 2 " " " " " "	-	32 "
ASBESTOS SINGLE AIR-CHAMBER,	-	26 "
ASBESTOS DOUBLE AIR-CHAMBER,	-	32 "

666-10-13-#4.

# ασβεστος



This cut represents a specimen of Asbestos (from our own mines) in its natural state.

## H. W. JOHNS MANUFACTURING CO., NEW YORK.

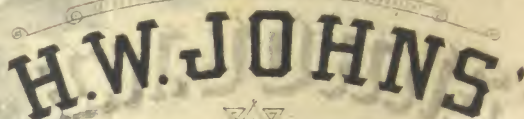
*And* Sole Manufacturers of H. W. JOHNS' ASBESTOS ROOFING,  
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